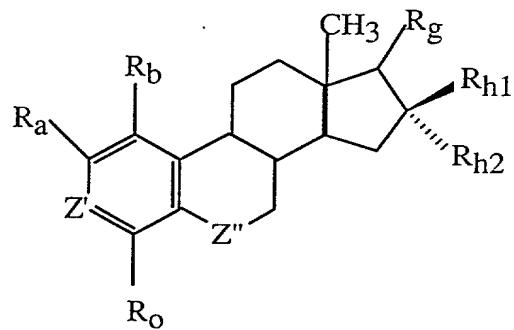


CLAIMS

We claim:

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1. A compound of the general formula:



wherein:

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a) R_b and R_o are independently -H, -Cl, -Br, -I, -F, -CN, lower alkyl, -OH, -CH₂-OH, -NH₂; or N(R₆)(R₇), wherein R₆ and R₇ are independently hydrogen or an alkyl or branched alkyl with up to 6 carbons;

15

b) R_a is -N₃, -C≡N, -C≡C-R, -C=CH-R, -R-C=CH₂, -C≡CH, -O-R, -R-R₁, or -O-R-R₁ where R is a straight or branched alkyl with up to 10 carbons or aralkyl, and R₁ is -OH, -NH₂, -Cl, -Br, -I, -F or CF₃;

20

c) Z' is >CH, >COH, or >C-R₂-OH, where R₂ is an alkyl or branched alkyl with up to 10 carbons or aralkyl;

25

d) >C-R_g is >CH₂, >C(H)-OH, >C=O, >C=N-OH, >C(R₃)OH, >C=N-OR₃, >C(H)-NH₂, >C(H)-NHR₃, >C(H)-NR₃R₄, or >C(H)-C(O)-R₃, where each R₃ and R₄ is independently an alkyl or branched alkyl with up to 10 carbons or aralkyl;

e) R_{h1} and R_{h2} are independently H, or a straight or branched chain alkyl, alkenyl or alkynyl with up to 6 carbons that is

unsubstituted, or substituted with one or more groups selected from a hetero functionality (O-Y, N-Y or S-Y) where Y is H, Me or an alkyl chain up to 6 carbons; a halo functionality (F, Cl, Br or I); an aromatic group optionally substituted with hetero, halo or alkyl; or R_{h1} and R_{h2} are independently an aromatic group optionally substituted with hetero, halo or alkyl, provided that both R_{h1} and R_{h2} are not H;

f) Z" is >CH₂, >C=O, >C(H)-OH, >C=N-OH, >C=N-OR₅, >C(H)-C≡N, or >C(H)-NR₅R₅, wherein each R₅ is independently hydrogen, an alkyl or branched alkyl with up to 10 carbons or aralkyl;

and wherein all monosubstituted substituents have either an α or β configuration.

2. The compound of Claim 1, wherein :

R_b and R_O are H,

R_a is OCH₃

Z' is >C-OH,

>C-R_g is >C(H)-β-OH, and

Z" is >CH₂.

3. The compound of Claim 2, wherein :

R_{h1} and R_{h2} are independently H and Et.

4. The compound of Claim 2, wherein:

R_{h1} and R_{h2} are independently H and n-Pr.

5. The compound of Claim 2, wherein:

R_{h1} and R_{h2} are independently H and i-Bu.

6. The compound of Claim 2, wherein:

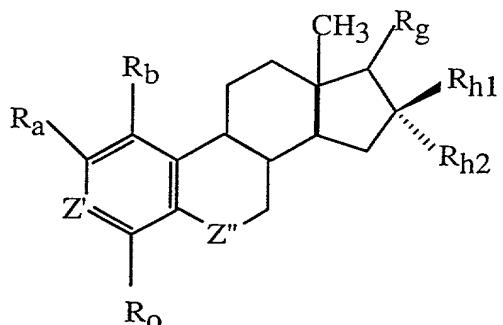
R_{h1} and R_{h2} are independently H and CH₂OH.

7. The compound of Claim 2, wherein :
5 R_{h1} and R_{h2} are independently H and n-Bu.

- 10 8. The compound of Claim 2, wherein :
R_{h1} and R_{h2} are independently H and Me.

- 15 9. The compound of Claim 2, wherein :
R_{h1} and R_{h2} are independently H and (CH₂)_n-C(Me)₂.

10. A method of inhibiting angiogenesis comprising administering to an endothelial cell an angiogenesis inhibiting amount of a compound of the general formula:



20 wherein:

a) R_b and R_O are independently -H, -Cl, -Br, -I, -F, -CN, lower alkyl, -OH, -CH₂-OH, -NH₂; or N(R₆)(R₇), wherein R₆ and R₇ are independently hydrogen or an alkyl or branched alkyl with up to 6 carbons;

25 b) R_a is -N₃, -C≡N, -C≡C-R, -C=CH-R, -R-C=CH₂, -C≡CH, -O-R, -R-R₁, or -O-R-R₁ where R is a straight or branched alkyl with up to 10 carbons or aralkyl, and R₁ is -OH, -NH₂, -Cl, -Br, -I, -F or CF₃;

c) Z' is $>\text{CH}$, $>\text{COH}$, or $>\text{C}-\text{R}_2-\text{OH}$, where R_2 is an alkyl or branched alkyl with up to 10 carbons or aralkyl;

5 d) $>\text{C}-\text{R}_g$ is $>\text{CH}_2$, $>\text{C}(\text{H})-\text{OH}$, $>\text{C}=\text{O}$, $>\text{C}=\text{N}-\text{OH}$, $>\text{C}(\text{R}_3)\text{OH}$, $>\text{C}=\text{N}-\text{OR}_3$, $>\text{C}(\text{H})-\text{NH}_2$, $>\text{C}(\text{H})-\text{NHR}_3$, $>\text{C}(\text{H})-\text{NR}_3\text{R}_4$, or $>\text{C}(\text{H})-\text{C}(\text{O})-\text{R}_3$, where each R_3 and R_4 is independently an alkyl or branched alkyl with up to 10 carbons or aralkyl;

10 e) $\text{R}_{\text{h}1}$ and $\text{R}_{\text{h}2}$ are independently H, or a straight or branched chain alkyl, alkenyl or alkynyl with up to 6 carbons that is unsubstituted, or substituted with one or more groups selected from a hetero functionality (O-Y, N-Y or S-Y) where Y is H, Me or an alkyl chain up to 6 carbons; a halo functionality (F, Cl, Br or I); an aromatic group optionally substituted with hetero, halo or alkyl; or $\text{R}_{\text{h}1}$ and $\text{R}_{\text{h}2}$ are independently an aromatic group optionally substituted with hetero, halo or alkyl, provided that both $\text{R}_{\text{h}1}$ and $\text{R}_{\text{h}2}$ are not H;

20 f) Z'' is $>\text{CH}_2$, $>\text{C}=\text{O}$, $>\text{C}(\text{H})-\text{OH}$, $>\text{C}=\text{N}-\text{OH}$, $>\text{C}=\text{N}-\text{OR}_5$, $>\text{C}(\text{H})-\text{C}\equiv\text{N}$, or $>\text{C}(\text{H})-\text{NR}_5\text{R}_5$, wherein each R_5 is independently hydrogen, an alkyl or branched alkyl with up to 10 carbons or aralkyl;

25 and wherein all monosubstituted substituents have either an α or β configuration.